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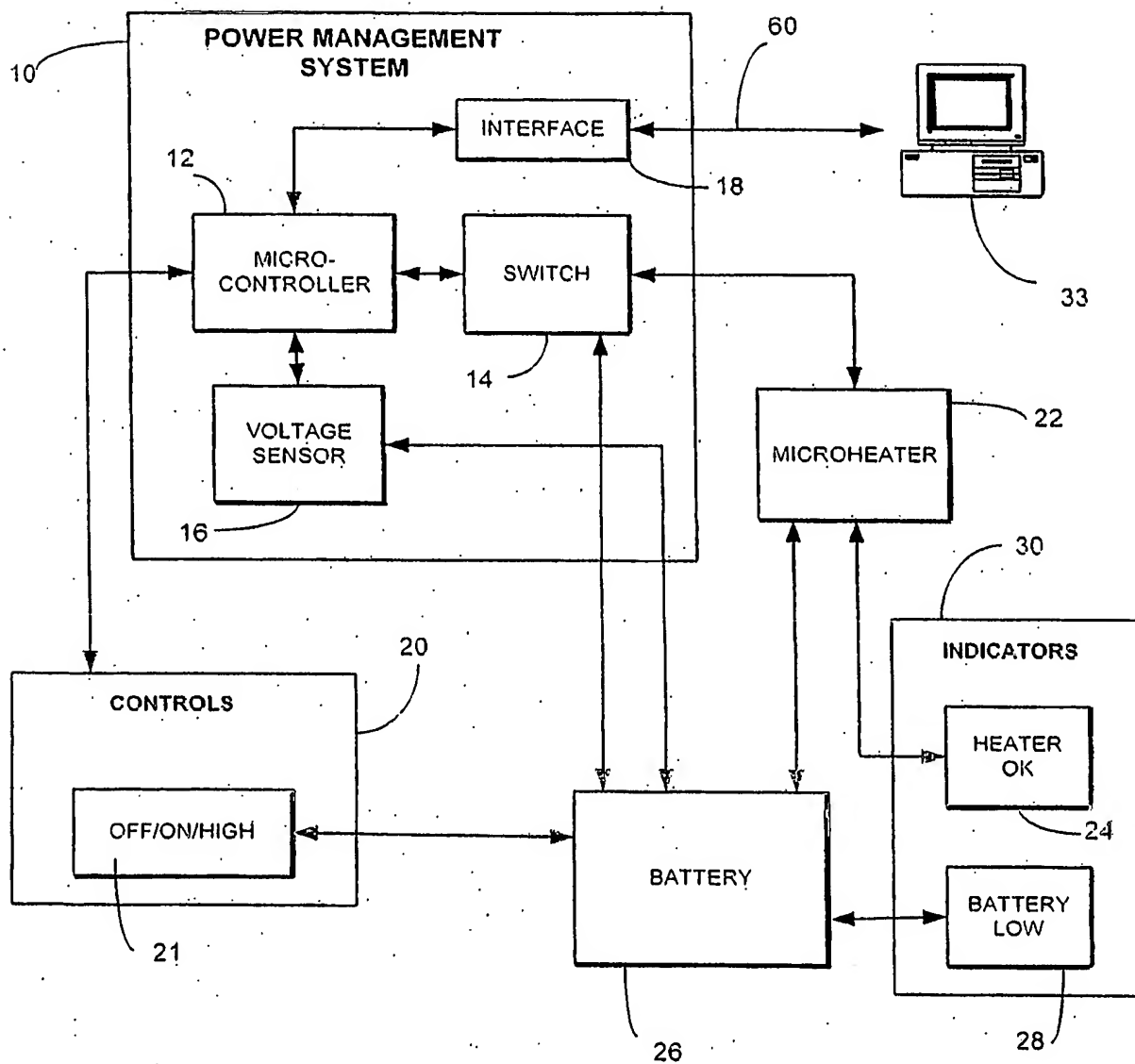
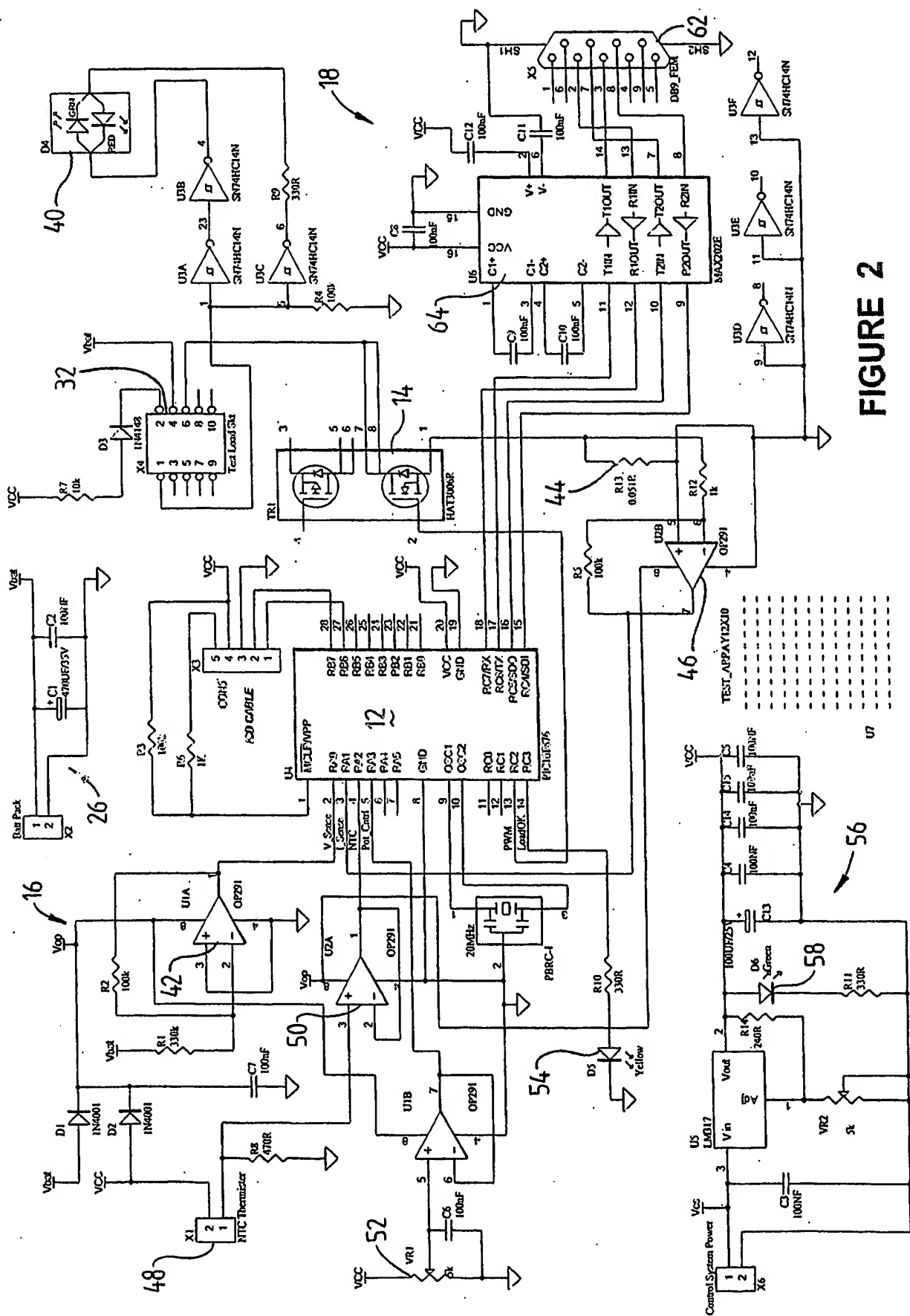


FIGURE 1



## FIGURE 2

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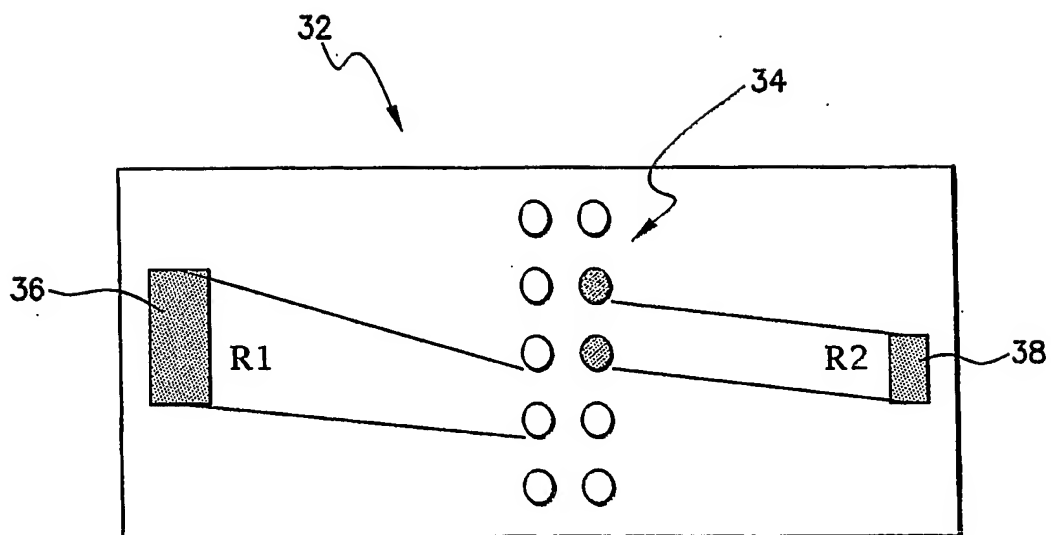


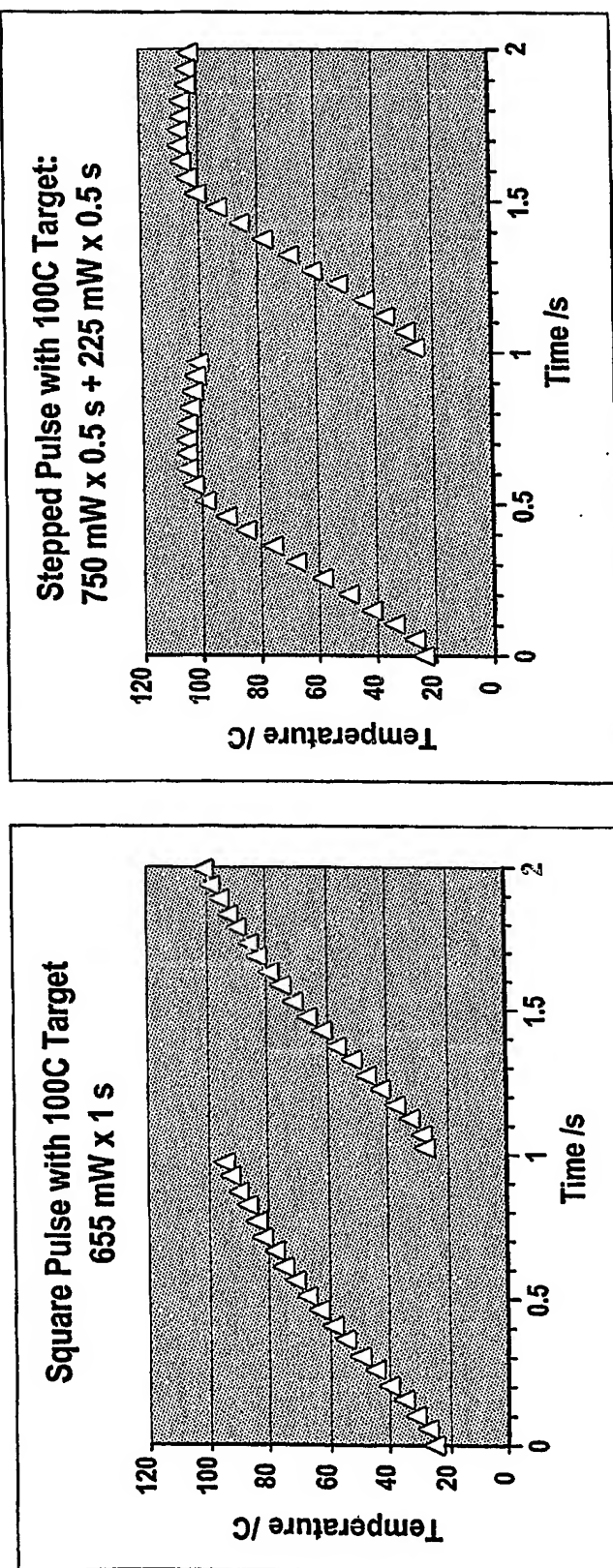
FIGURE 3

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## Temperature Measurements

Energy efficiency of simple and compound pulses

Target temperature 100C, duration 1s



Energy Cost: 485 mJ/pulse

Energy Cost: 655 mJ/pulse

25% energy saving, temperature maintained longer

FIGURE 4

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## Performance: Delivery Rates

0603

4R7

2 x AA

3V

 $T_{on} = 0.3 \text{ s}$  $T_{pulse} = 1.7 \text{ s}$  $T_{cycle} = 60 \text{ s}$ 

% Pulse = 50%

Adaptive Mode

80  $\mu\text{m}$  wick

100% 51264

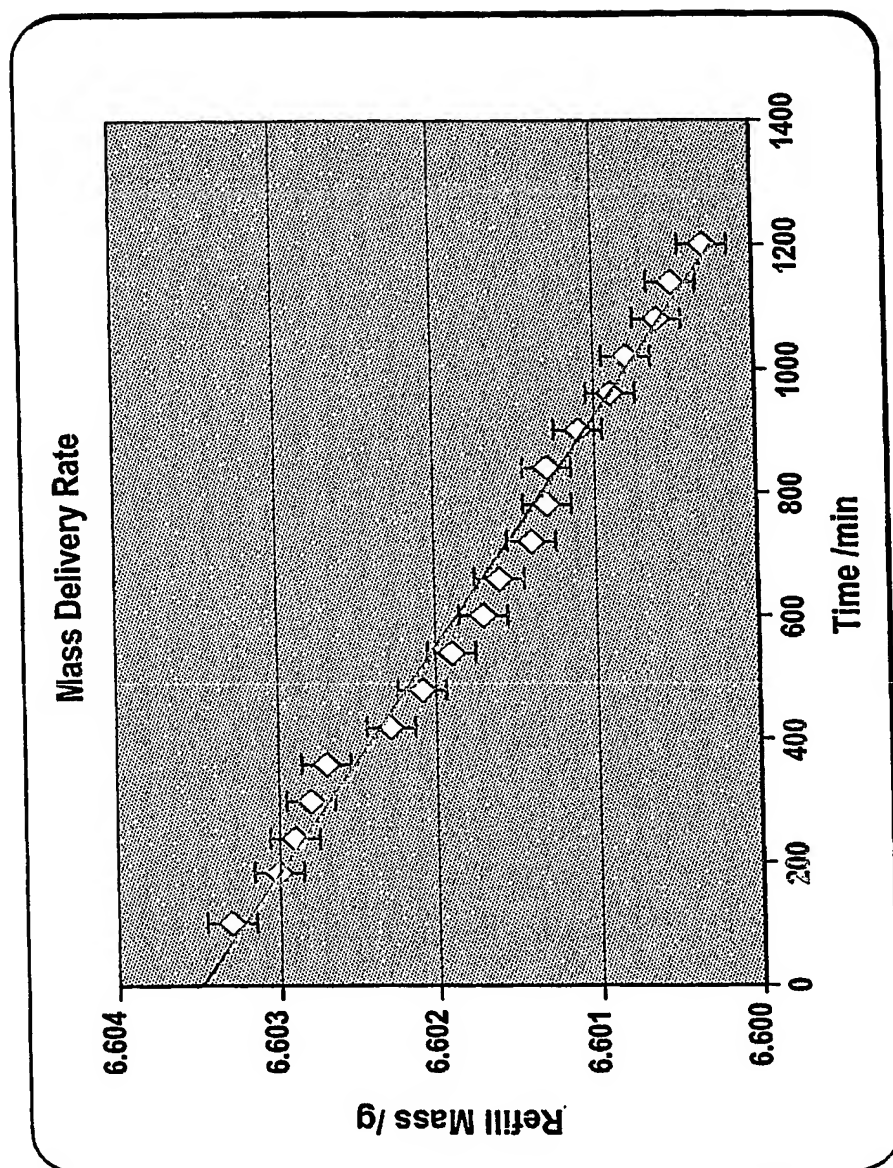
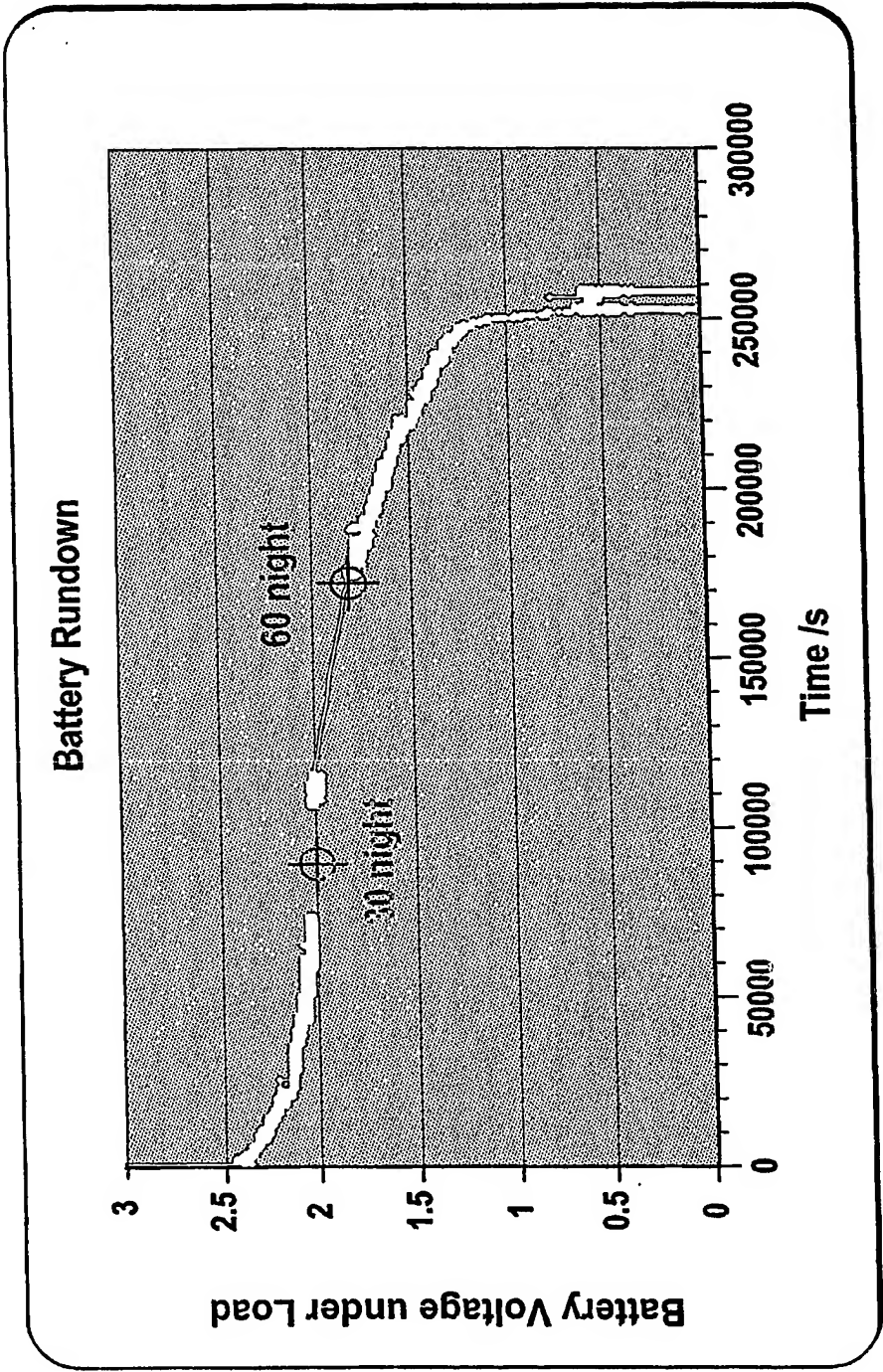
Delivery Rate = 160  $\mu\text{g/hr}$ 

FIGURE 5

Performance: Battery Lifetime

4R7  
2 x AA  
3V  
 $T_{on} = 0.3\text{ s}$   
 $T_{pulse} = 1.7\text{ s}$   
 $T_{cycle} = 60\text{ s}$   
% Pulse = 50%  
Adaptive Mode



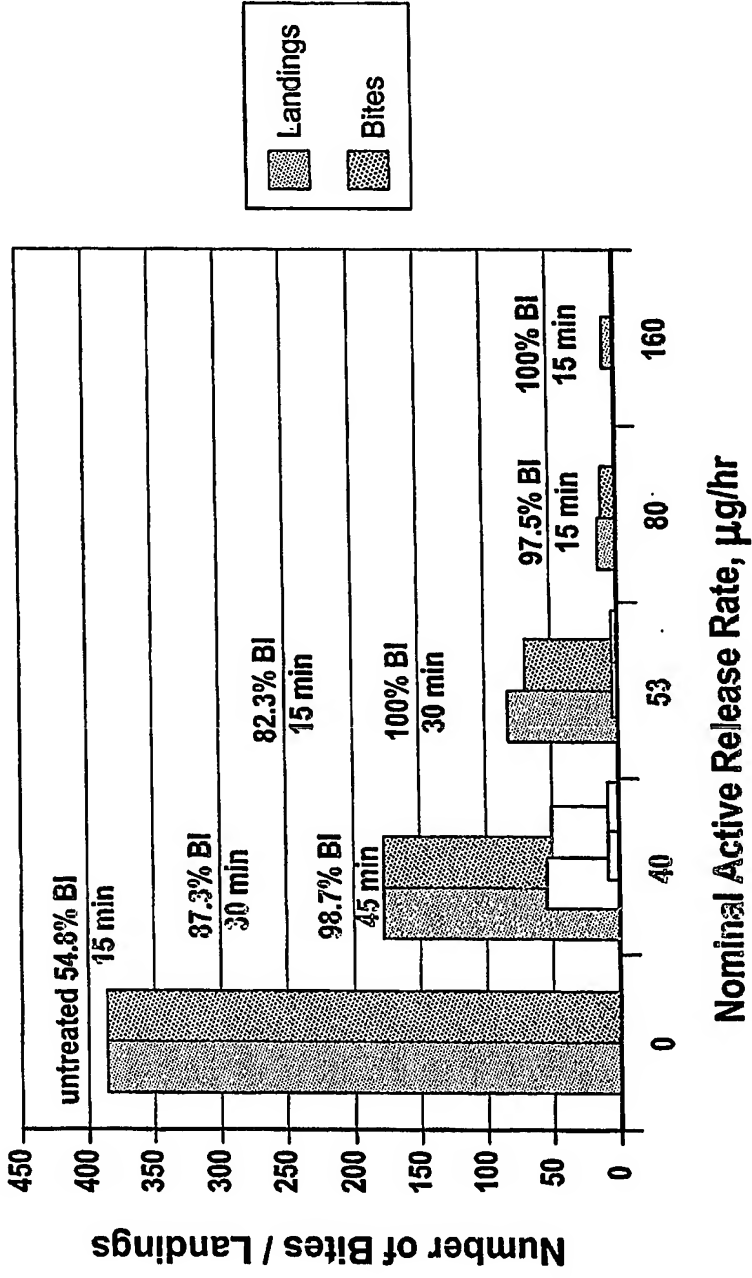
2 x AA quality alkaline batteries give  
1 - 2 months performance at 50  $\mu\text{g/hr}$

FIGURE 6

Performance: Bioefficacy

0603  
4R7  
2 x AA  
3V  
 $T_{on} = 0.3\text{ s}$   
 $T_{pulse} = 1.7\text{ s}$   
 $T_{cycle} = 60\text{ s}$   
% Pulse = 50%  
Adaptive  
80  $\mu\text{m}$  wick  
100% S1264

Micro Device - Landings and Bites  
*Ae. aegypti*, 100% S1264 Refill, 1s x 610 mW pulses  
Single Replicates



**FIGURE 7**  
50  $\mu\text{g/hr} = 1 \times 2\text{ s}$  pulse per 3 min 12s  
90% bite inhibition in 15 min (5 replicates)